CLAIMS

What is claimed is:

1   1.   A method for forwarding data packets to one of a plurality of servers comprising:

2   receiving a data packet from a source at a data packet forwarding device having a

3   plurality of ports;

4   performing a hashing function using a unique component of the data packet as a seed

5   value for the hash;

6   generating a hash value using the hashing function;

7   looking up a table for address information of one of the plurality of servers using the

8   hashed value as an index to the table; and

9   forwarding the data packet to a server using the address information obtained from the

10 table.

1   2.   The method of claim 1, wherein forwarding the data packet to a server

2   corresponding to the address comprises forwarding subsequent data packets from the

3   source to the server using the hashing function.

1   3.   The method of claim 1, wherein generating a hash value using the hashing

2   function comprises generating a hash value using at least one parameter from a group

3   consisting of a Transmission Control Protocol source port number, Transmission Control

4   Protocol destination port number, an Internet Protocol (hereafter IP) source address and

5   an IP destination address in the hash function.

1   4.   The method of claim 1, wherein forwarding the data packet to a server using the

2   address information obtained from the table comprises searching a table for the address

3   information of the server using the hash value generated by the hashing function and

4   forwarding the data packet to the server.

1   5.   An article of manufacture comprising:

2   a machine-accessible medium including instructions, that when executed

3   by a machine, cause said machine to perform operations comprising

4   receiving a data packet from a source at a data packet forwarding device having a

5   plurality of ports;

6   performing a hashing function using a unique component of the data packet as a seed

7   value for the hash;

8   generating a hash value using the hashing function;

9   looking up a table for address information of one of the plurality of servers using the

10   hashed value as an index to the table; and

11   forwarding the data packet to a server using the address information obtained from the

12   table.

1   6.   The article of manufacture of claim 5, wherein said machine-accessible medium

2   further includes instructions that when executed by the machine, cause the machine to

3   send subsequent data packets from the source to the server using the hash function.

1   7.   The article of manufacture of claim 5, wherein said machine-accessible medium

2   further includes instructions that when executed by the machine, cause the machine to

3   generate a hash value using at least one parameter from a group consisting of a

4   Transmission Control Protocol source port number, Transmission Control Protocol

5   destination port number, an Internet Protocol (hereafter IP) source address and an IP

6   destination address in the hashing function.

1   8.   The article of manufacture of claim 5, wherein said instructions for forwarding

2   the data packet to a server using the address information obtained from the table, includes

3   further instructions to cause the machine to search the table for the address information of

4   the server using the hashed value generated by the hashing function and to forward the

5   data packet to the server.

1   9.   An apparatus comprising:

2   means for receiving a data packet from a source at a data packet forwarding device

3   having a plurality of ports;

4   means for performing a hashing function using a unique component of the data packet as

5   a seed value for the hash;

6   means for generating a hash value using the hashing function;

7   means for looking up a table for address information of one of the plurality of servers

8   using the hashed value as an index to the table; and

9   means for forwarding the data packet to a server using the address information obtained

10   from the table.

1   10.   The apparatus of claim 9, wherein means for forwarding the data packet to a

2   server corresponding to the address comprises means for forwarding subsequent data

3   packets from the source to the server using the hashing function.

1   11.   The apparatus of claim 9, wherein means for generating a hash value using the

2   hashing function comprises means for generating a hash value using at least one

3   parameter from a group consisting of a Transmission Control Protocol source port

4   number, Transmission Control Protocol destination port number, an Internet Protocol

5   (hereafter IP) source address and an IP destination address in the hash function.

1   12.   The apparatus of claim 9, wherein means for forwarding the data packet to a

2   server using the address information obtained from the table comprises means for

3   searching a table for the address information of the server using the hash value generated

4   by the hashing function and forwarding the data packet to the server.